

Title (en)
FOCUSING WATERPROOF FLASHLIGHT

Title (de)
WASSERDICHTER HANDLEUCHTE MIT FOKUSSIERUNG

Title (fr)
LAMPE DE POCHE ETANCHE A MISE AU POINT

Publication
EP 1307686 A4 20050810 (EN)

Application
EP 01987860 A 20010809

Priority
• IB 0102801 W 20010809
• US 22482000 P 20000811

Abstract (en)
[origin: US6547414B2] An underwater flashlight has an adjustable focusing beam and a waterproof battery pack which can be removably changed underwater. The flashlight includes a watertight housing having a slidably mounted lamp therein slidable by an external sliding focus member having a permanent magnet mounted therein. The permanent magnet moves an internal sliding focusing member also having a magnet therein coacting with the external magnet. The slidable inside focusing member is connected by a link to the lamp for moving the lamp into and out of a reflector when focusing the lamp. An on/off switch is attached to the slidable outside focusing member and has a magnet mounted therein for actuating a pickup coil attached to the slidable inside focusing member. The flashlight includes a waterproof attachable battery pack which has a magnetic switch therein actuated by a magnet in the watertight housing of the flashlight so that the batteries do not provide an electrical connection until the contacts are brought together.

IPC 1-7
F21L 4/00; **F21V 14/02**

IPC 8 full level
F21L 4/00 (2006.01); **F21V 14/00** (2006.01); **F21V 14/02** (2006.01); **F21V 19/02** (2006.01); **F21V 23/04** (2006.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)
F21L 2/00 (2013.01 - EP US); **F21L 4/00** (2013.01 - EP US); **F21V 14/025** (2013.01 - EP US); **F21V 19/02** (2013.01 - EP US);
F21V 23/0414 (2013.01 - EP US)

Citation (search report)
• [YA] GB 2309073 A 19970716 - GRIFFITHS STEVEN ANDREW [GB]
• [Y] GB 2223356 A 19900404 - TUNG FAT IND LTD [HK]
• [A] US 5465196 A 19951107 - HASENBERG MARK J [US], et al
• [A] DE 1087271 B 19600818 - FERDINAND MEINZEN
• [A] US 3961175 A 19760601 - OTAGOSHI HITOSHI

Cited by
CN102568886A

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
US 2002018343 A1 20020214; **US 6547414 B2 20030415**; AT E384910 T1 20080215; AU 3203902 A 20020429; CA 2417582 A1 20020425; CN 100436933 C 20081126; CN 1636119 A 20050706; DE 60132597 D1 20080313; DE 60132597 T2 20090129; EP 1307686 A2 20030507; EP 1307686 A4 20050810; EP 1307686 B1 20080123; JP 2004511893 A 20040415; WO 0233310 A2 20020425; WO 0233310 A3 20021128

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